

ABSTRACT

Method and apparatus for detecting or analyzing chemical reactions, such as an enzyme reaction, and other events in which electron translation is accompanied by photon emission utilizing a magnetometer probe to detect a
5 change in electromagnetic field strength as a characterization of the event or of a substance. The event may be of unknown cause and a recorded time course of the change in electromagnetic field strength may be compared with known time course of known events to determine the cause of the unknown cause event. Similarly, a chemical substance may be detected and its identity determined.